

## EPIDEMIOLOGY AND CHARACTERISTICS OF PAGET'S DISEASE OF BONE (PDB) IN THREE DIFFERENT ITALIAN TOWNS

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Previous epidemiologic survey on Italian cases of PDB provided evidence for a geographic clustering in Campania with an increased prevalence of PDB in rural than in urban areas and a significant association with animal contacts. We performed a larger epidemiological study in the towns of Turin (Piemonte, Northern Italy), Siena (Tuscany, Central Italy), and Naples (Campania, Southern Italy). Data were collected by detailed questionnaires and clinical analysis. 321 PDB patients (75 in Turin, 121 in Siena, and 125 in Naples) and 240 age and sex matched controls were analysed. No significant differences between PDB patients and controls concerning hair colour, height, or weight. An increased prevalence of clear eye colour in PDB than in controls was observed. There was a slight male predominance, with a male to female ratio of 1.3:1. According to bone scan and X-rays, 108 were classified as monostotic while 213 as polyostotic PDB. 60 PDB patients (19%) had at least one family member affected and were defined as familial PDB. There was a concentration of cases in rural with respect to urban areas. In contrast, a reduced prevalence of PDB was observed in the urban areas of Siena and Turin. We observed an overall significant association between PDB and contacts with animals, with some differences in animal families among the different areas. The analysis of demographic and immigration history of PDB patients from Turin and Siena showed an increased prevalence of cases with actual or previous residency in Campania. The mean number of affected sites and the number of polyostotic cases were higher in PDB subjects from Campania. An elevated use of unpasteurised milk was also observed. Such differences appeared more evident when familial PDB cases from Campania were considered. Finally, neoplastic degeneration of PDB was observed in 6 patients from Naples with respect to none of the 196 patients from Siena and Turin. Results from the present study confirm the geographical clustering and an increased prevalence of PDB in rural districts. Increased clinical severity and peculiar clinical characteristics in the higher prevalence area of Campania are also evident.